

16. The nucleic acid of claim 14, wherein the encoded CAK1 polypeptide has an intrinsic kinase activity.

sub  
H2  
17. The nucleic acid of claim 16, wherein the kinase activity of the CAK1 polypeptide activates a *Candida* cyclin dependent kinase.

18. The nucleic acid of claim 16, wherein the phosphatase activity of the CAK1 polypeptide phosphorylates *Candida* cyclin dependent kinases (cdks).

19. The nucleic acid of claim 14, which nucleic acid further comprises a transcriptional regulatory sequence operably linked to said nucleotide sequence so as to render said nucleotide sequence suitable for use as an expression vector.

20. An expression vector, capable of replicating in at least one of a prokaryotic cell and eukaryotic cell, comprising the nucleic acid of claim 14.

21. A host cell transfected with the expression vector of claim 20.

22. A method of producing a recombinant *Candida* CAK1 protein comprising culturing the cell of claim 21 in a cell culture medium to express said CAK1 protein and isolating said CAK1 protein from said cell culture.

sub  
H3  
37. (Twice Amended) A substantially pure nucleic acid comprising a nucleotide sequence which hybridizes under stringent conditions of 6.0 x SSC at 45 °C followed by a wash step of 2.0 x SSC at 50 °C to the nucleic acid of SEQ ID No. 13.

38. The nucleic acid of claim 37, which nucleic acid encodes a *CAK1* polypeptide at least 75% homologous to an amino acid sequence represented in SEQ ID No. 14.

39. The nucleic acid of claim 37, which nucleic acid encodes a polypeptide with an intrinsic kinase activity.

40. The nucleic acid of claim 37, which nucleic acid encodes a polypeptide which functions in one of either role of an agonist or an antagonist of cell cycle regulation of a *Candida* cell.

Please add the following new claims:

41. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence identical to SEQ ID No. 14.

42. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID No. 14.

43. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 95% identical to SEQ ID No. 14.

44. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 98% identical to SEQ ID No. 14.

45. (New) The nucleic acid of claim 37, wherein the nucleic acid comprises a nucleotide sequence of SEQ ID No. 13.

*The claims presented above incorporate changes as indicated by the marked-up versions below.*

14. (Amended) A substantially pure nucleic acid comprising a nucleotide sequence which encodes a CAK1 polypeptide at least 75% ~~homologous~~ identical to an amino acid sequence represented in SEQ ID No. 14.

37. (Twice Amended) A substantially pure nucleic acid comprising a nucleotide sequence which hybridizes under stringent conditions of 6.0 x SSC at 45 °C followed by a wash step of 2.0 x SSC at 50 °C to the nucleic acid of SEQ ID No. 13.